Defense Table of Official Distances (DTOD)
Commercial-off-the-shelf (COTS) Distance Product Market Survey

1. The Government seeks vendor information about software products that are capable of generating worldwide road distances, in miles and kilometers, for the DTOD program in accordance with the requirements listed below. Replies from interested parties should include a copy of latest version of distance software products for evaluation, with instructions on how to operate and operating environment, For example RAM compatibility, types of operating systems required, etc. Also, how often and when does your company do updates for the above-mentioned software? What are the rough costs associated with software licensing fee's? This information must be received no later than 2:00 PM EST, July 7, 2003. Mailing address for replies and products is as follows:

MILITARY TRAFFIC MANAGEMENT COMMAND
Hoffman Building II Room 12S45 / ATTN: MTAQ-T (M.LAMAR)
200 STOVALL STREET
Alexandria, VA 22332-5000

This Request for Information (RFI) will be used for Market research only.

As a point of general interest, the Government intends to issue a full and open competitive solicitation and award a multi-year contract during 2Q FY04 for a software product that calculates worldwide road distances for the Defense Table of Official Distances (DTOD) program.

Instructions to view (RFI) on MTMC website.

Contractors are required to review the Defense Table of Official Distances (DTOD) Commercial-off-the-shelf (COTS) Distance Product Market Survey requirement at the following website in order to view full (RFI) with tables.

1. **http://www.mtmc.army.mil**
2. **Click on Business Center**
3. **Click on Solicitations**
4. **Locate Defense Table of Official Distances (DTOD) Commercial-off-the-shelf (COTS) Distance Product Request for Information (RFI).**

The (RFI) will be available for viewing on Friday June 20, 2003.

Contract Specialist: Melvin Lamar (703) 428-2053, Email: lamarm@mtmc.army.mil

Contracting Officer: Ruby Mixon (703) 428-2060 Email: mixonr@mtmc.army.mil

DTOD Commercial-off-the-shelf (COTS) Worldwide Software Distance Product Requirements.

The software distance product, hereinafter referred to as "the DTOD distance product", must generate worldwide road distances, in miles or kilometers, for the DTOD Program.

2. DTOD Operational Configurations.

The Software mileage product must be deployed in the following multiple operational configurations:

(1) An MS Windows NT/2000 server implementation for the DTOD Web site, accessible by network and remote users;

(2) A standard interface for access by external application systems, with the DTOD software mileage product residing on MS Windows NT/2000 servers

(3) An MS Windows 95/NT PC-based Single-user CD-ROM version for stand-alone remote users.

3. The mileage software shall have, at a minimum, the following the attributes that is at each DTOD location:

a. City, Government facility, other point of interest name

b. State Code or Province Code (U.S. and Canada only)

c. Country Code

d. County or County equivalent Name (where applicable)

e. Region Code (Africa, Asia, Europe, NA (North America), Oceania, SA (South America)

f. European Postal Code (Europe only)

g. Standard Point Location (SPLC) (North America only)

h. Latitude and Longitude

4. The Software mileage product must display one or more locations or points for each of the following combinations of location attributes entered by the user or passed as parameters by an application system:

a. City Name, U.S. State/Canadian Province Abbreviation

b. City Name, U.S. State/Canadian Province Abbreviation, County or County equivalent Name

c. City Name, Country Code

d. City Name, Country Code, County or County equivalent

e. ZIP Code (U.S only)

f. European Postal Code

g. Standard Point Location Code (SPLC)

h. Latitude and Longitude (in either decimal and degrees/minutes/seconds formats)

5. The Software mileage product must include the capability to display one or more locations based on partial entry of the following attributes, when specified with other combinations of attributes, if any, in accordance with item 2.

    a. City Name – at least the first two characters

    b. ZIP Code – at least the first two digits

    c. European Postal Code – at least the first two digits

    d. SPLC – at least the first two digits.

6. The product must calculate the following types of distances:

    a. Point-to-point within one region – distance from an Origin to a Destination within the same region

    b. Point-to-point across regions – distance from an Origin in one region to a Destination in another region when the regions are in the same or contiguous landmasses

    c. Multiple-stops – distances from an Origin to points sequentially specified, displaying the distance between each point, and providing cumulative totals and a trip total.

    d. Hub routing – distances from one Origin to multiple Destinations.

7. The product must enable users or interfacing systems to specify the following routing options and distance result types in calculating worldwide distances:

    a. **Scale** – the distance unit of measure, Miles or Kilometers, to be returned by DTOD. Travel reimbursements and transportation payments are based on miles. Scale is also referred to as Units.

    b. **Route Type** – one of four routing methods, defined below, which determine how a distance is calculated:

        (1) Practical routes represent truck-navigable driving routes over roads that minimize transit or travel time. Practical routing is the most time-efficient path between two points traversable by a commercial freight carrier, irrespective of distance. Practical routes model the trade-off between taking the most direct path and staying on major, high quality highways.

Interstate highways are given a higher priority than toll roads, which, in turn, are given a higher priority than secondary highways, and so on. DTOD Practical routings consider distance, road quality, terrain, urban/rural classification, truck-restricted roads, and designated principal and secondary through routes. For DTOD, Practical routing is the default routing type used in calculating distances for Freight Overweight/Overdimensional (OW/OD) shipments.

(2) Shortest routes represent distances and driving routes that minimize total distance traveled while still following a route traversable by a commercial freight carrier. For DTOD, Shortest routing is the default routing type used in calculating distances for General Freight/Cargo shipments, Personal Property shipments, and Do-It-Yourself (DITY) moves.

(3) Personally-Owned Vehicle (POV) routes use roads that a car or light van would take to minimize time and cost. The algorithm for a POV route is more like a Practical route than a Shortest route. Unlike Practical route calculations, however, POV calculations do not consider such factors as truck restrictions on roads, the height of tunnels, etc. For DTOD, POV routing is the default routing type used in calculating distances for Travel.

(4) Hazardous Materials routes represent distances and driving routes over roadways that conform to Federal, State, and local restrictions governing the movement of hazardous materials. For DTOD, Hazardous routing is an option used only in calculating distances for Freight/Cargo HazMat shipments in North America.

c. **Borders Type** – indicates whether distance is calculated using Borders Open or Borders Closed. This option is included to provide a mechanism for minimizing border crossings within North America. In determining the most direct route for a trip, Borders Open means that borders can be crossed and re-crossed multiple times. To restrict border crossings to one entrance and egress, the option can be set to Borders Closed. For Travel in all DTOD regions, Borders type is set to Open. For Freight and Personal Property shipments and DITY moves in North America, Borders type is set to Closed. For Freight and Personal Property shipments and DITY moves in all regions except North America, Borders type is set to Open.

d. **Ferry Miles** - instructs DTOD to include the distance traversed by ferries in the total distance calculated by DTOD. Ferry miles can be included or excluded. For Travel in all regions, Ferry Miles is set to Exclude. For Freight and Personal Property shipments and DITY moves in all regions except Europe, Ferry Miles is set to Include. For Freight and Personal Property shipments and DITY moves in Europe, Ferry Miles is set to Exclude.

8. The DTOD distance product must provide the capability to set the parameters described in item 5 as defaults for interactive and batch distance calculation processing.

9. The DTOD distance product must assure flexible support for setting the routing options and result types, described in items 6 and 7, in accordance with the policies for each functional area (Travel, Personal Property, and Freight) within each region of the world, as summarized

in Tables 3, 4, and 5, shown below (Travel includes Permanent Change of Station (PCS) and Temporary Duty (TDY) travel).

DTOD REGION – NORTH AMERICA					
Functional Area	**Scale**	**Route Type**	**Borders**	**Ferry Miles**	**HazMat**
Travel (PCS, TDY)	Miles	POV	Open	Exclude	N/A
DITY Moves	Miles	Shortest	Closed	Include	N/A
Personal Property – Commercial Moves	Miles	Shortest	Closed	Include	N/A
Freight – General	Miles	Shortest	Closed	Include	N/A
Freight – Overweight/Overdimensional	Miles	Practical	Closed	Include	N/A
Freight – Hazardous Materials	Miles	Practical	Closed	Include	Explosives

Table 3. Functional Area Business Rules for Setting DTOD Options in North America

DTOD REGION - EUROPE				
Functional Area	**Scale**	**Route Type**	**Borders**	**Ferry Miles**
Travel (PCS, TDY)	Miles	POV	Open	Exclude
DITY Moves	Kilometers	Practical	Open	Exclude
Personal Property – Commercial Moves	Kilometers	Practical	Open	Exclude
Freight – General	Kilometers	Practical	Open	Exclude
Freight – Overweight/Overdimensional	Kilometers	Practical	Open	Exclude

Table 4. Functional Area Business Rules for Setting DTOD Options in Europe

DTOD REGION – AFRICA, ASIA, OCEANIA, SOUTH AMERICA				
Functional Area	**Scale**	**Route Type**	**Borders**	**Ferry Miles**
Travel (PCS, TDY)	Miles	POV	Open	Exclude
DITY Moves	Miles	Shortest	Open	Include
Personal Property – Commercial Moves	Miles	Shortest	Open	Include
Freight – General	Miles	Shortest	Open	Include
Freight – Overweight/Overdimensional	Miles	Practical	Open	Include

Table 5. Functional Area Business Rules for Setting DTOD Options in Africa, Asia, Oceania, & South America

10. The Software mileage product must provide the capability to generate, display, and print maps at varying levels of perspective (i.e., zoom in and out), and with varying levels of detail on the DTOD Web without modifying DTOD Web application software.

11. The Software mileage single-user PC version of the Software mileage product must provide the capability to generate, display, and print maps and directions. Additionally, the single-user PC version of the product must include the capability to add and remove custom points.

12. The server and Web server versions of the Software mileage product must include the capability to programmatically (i.e., through application software) add new locations and override the placement of existing locations.

13. All versions of the Software mileage product must include the capability to override road restrictions and disable road segments using Avoid and Favor features; when these features

are used, they must apply to all subsequent trips until the features are changed or otherwise disabled.

14. The Web server and interfacing system server versions of the Software mileage product must provide software developers access to product features from other applications, and must allow language-independent Windows application development. Client applications must be able to retrieve locations, distances, driving times, state\country distance reports, and detailed driving instructions. The server versions must allow easy integration of product distance information into popular software, such as Microsoft Access and Microsoft Excel, and into custom applications built with software development environments, such as Visual Basic and various Microsoft Visual C++, Delphi, C++ Builder, etc.